

Digital indicator for panel mounting Model DI25, with multi-function input

WIKA data sheet AC 80.02

Applications

- Plant construction
- Machine tools
- Plastics technology and processing
- Ventilation and air-conditioning
- General industrial applications

Special features

- Multi-function input for current and voltage signals as well as thermocouples and resistance thermometers
- Ingress protection IP 66 (front panel)
- Two or three freely programmable alarm outputs as standard (depending on the instrument version)
- 4 ... 20 mA analogue output signal as standard
- HOLD function



Digital indicator model DI25

Description

The model DI25 digital indicator is a multi-function, competitively-priced instrument for a wide variety of measuring tasks.

The multi-function input has 18 different input configurations, which can be selected via the rear connections and also by selection of the appropriate input signal within the instrument configuration.

In this way it is possible to connect both transmitters with current or voltage signals and resistance thermometers or thermocouples to the same instrument.

The measured values can be retransmitted for further processing via an analogue output signal (4 ... 20 mA).

The basic version of the DI25 indicator features three alarm outputs. Instruments with the optional DC 24 V transmitter power supply have two alarm outputs available.

With the high ingress protection of the front panel (IP 66), the DI25 digital indicator can also be used under extreme operating conditions.

All configuration and programming can be carried out through the front-panel keys.

Display

Principle

7-segment LED

Actual value display (PV display)

4-digit, red, character size 16 mm

Set value display (SV display)

4-digit, green, character size 10 mm

Indication range

-1999 ... 9999

Input

Number and type

1 x multi-function input

Input configuration

Selectable via terminal connections and menu-driven programming

Measuring time

250 ms

Analogue output

Output signal

4 ... 20 mA, load \leq 500 Ω

Accuracy

\pm 0.3 % of the output span

Transmitter power supply (option)

DC 24 V \pm 3 V, max 30 mA

Voltage supply

Power supply

Selectable power supply

AC 100 ... 240 V (permissible voltage: AC 85 ... 264 V), 50/60 Hz

AC/DC 24 V (permissible voltage: AC/DC 20 ... 28 V), 50/60 Hz

Power consumption

approx. 10 VA

Electrical connection

Screw terminals

Switching output

Number and type

Selectable switching outputs

2 switch contacts (relays)

3 switch contacts (relays)

Instruments with integrated transmitter power supply do not feature the alarm output 2.

Alarm types of switching outputs

- High alarm
- High alarm with standby
- Low alarm
- Low alarm with standby
- High-Low alarm (only for switch contact 3)

Switch behaviour

Normally closed or normally open, can be set via keyboard

Load capacity

AC 230 V, 3 A (resistive load)

HOLD function

Selectable: Instantaneous/minimum or maximum value

Activation of the HOLD function via connection terminals

Case

Material

Polycarbonate, black

Ingress protection (per IEC 60529/EN 60529)

Front: IP 66

Rear: IP 00

Dimensions

96 x 48 x 110 mm

Weight

approx. 300 g

Mounting

Screw type mounting brackets for wall thicknesses from 1 to 15 mm

Permissible ambient conditions

Operating temperature

0 ... 50 °C

Storage temperature

-20 ... +50 °C

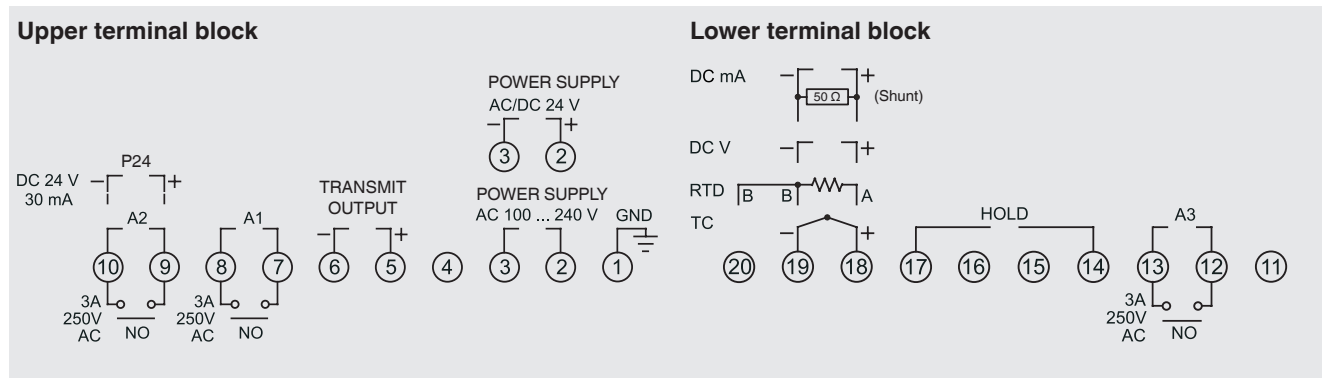
Relative humidity

35 ... 85 % r. h. annual mean without condensation

Accuracy/measuring errors of the input signals

Input signals	Measuring span		Measuring error in % of the span	
			Standard	Exception
Current signals				
0 ... 20 mA	-1999 ... +9999		±0.2 % ±1 digit	-
4 ... 20 mA	-1999 ... +9999		±0.2 % ±1 digit	-
Voltage signals				
0 ... 1 V	-1999 ... +9999		±0.2 % ±1 digit	-
0 ... 5 V	-1999 ... +9999		±0.2 % ±1 digit	-
1 ... 5 V	-1999 ... +9999		±0.2 % ±1 digit	-
0 ... 10 V	-1999 ... +9999		±0.2 % ±1 digit	-
Thermocouples				
Type K, NiCr-Ni	-200 ... +1,370 °C	-320 ... +2,500 °F	±0.2 % ±1 digit	≤ 0 °C: ±0.4 % ±1 digit
	-199.9 ... +400.0 °C	-199.9 ... +750.0 °F	±2 K	≤ 0 °C: ±0.4 % ±1 digit
Type J, Fe-CuNi	-200 ... +1,000 °C	-320 ... +1,800 °F	±0.2 % ±1 digit	≤ 0 °C: ±0.4 % ±1 digit
Type R, PtRh-Pt	0 ... 1,760 °C	0 ... 3,200 °F	±0.2 % ±1 digit	≤ 200 °C: ±6 K
Type S, PtRh-Pt	0 ... 1,760 °C	0 ... 3,200 °F	±0.2 % ±1 digit	≤ 200 °C: ±6 K
Type B, PtRh-PtRh	0 ... 1,820 °C	0 ... 3,300 °F	±0.2 % ±1 digit	≤ 300 °C: without details
Type E, NiCr-CuNi	-200 ... +800 °C	-320 ... +1,500 °F	±0.2 % ±1 digit	≤ 0 °C: ±0.4 % ±1 digit
Type T, Cu-CuNi	-199.9 ... +400.0 °C	-199.9 ... +750.0 °F	±2 K	≤ 0 °C: ±0.4 % ±1 digit
Type N, NiCrSi-NiSi	-200 ... +1,300 °C	-320 ... +2,300 °F	±0.2 % ±1 digit	≤ 0 °C: ±0.4 % ±1 digit
Type PL-II	0 ... 1,390 °C	0 ... 2,500 °F	±0.2 % ±1 digit	-
Type C (W/Re5-26)	0 ... 2,315 °C	0 ... 4,200 °F	±0.2 % ±1 digit	-
Resistance thermometer				
Pt100 (3-wire)	-200 ... +850 °C	-300 ... +1,500 °F	±0.1 % ±1 digit	-
	-199.9 ... +850.0 °C	-199.9 ... +999.9 °F	±0.1 % ±1 digit	-
JPT 100 (3-wire)	-200 ... +500 °C	-300 ... +900 °F	±0.1 % ±1 digit	-
	-199.9 ... +500.0 °C	-199.9 ... +900.0 °F	±1 K	-

Terminal assignment



Terminal	Case labelling	Significance
1	GND	Ground
2	AC 100 ... 240 V AC/DC 24 V (+)	Power supply
3	AC 100 ... 240 V AC/DC 24 V (-)	
4		Not connected
5	TRANSMIT OUTPUT +	Analogue output signal
6	TRANSMIT OUTPUT -	
7	A1	Alarm output 1; AC 250 V, 3 A
8	A1	
9	A2 P24 (+)	Alarm output 2; AC 250 V, 3 A {Positive transmitter power supply U+, DC 24 V, 30 mA}
10	A2 P24 (-)	
11		Not connected
12	A3	Alarm output 3; AC 250 V, 3 A
13	A3	
14	HOLD	HOLD function
15		Not connected
16		Not connected
17	HOLD	HOLD function
18	+ A	Input signal TC, DC V and DC mA (with shunt) Input signal RTD
19	- B	Input signal TC, DC V and DC mA (with shunt) Input signal RTD
20	B	Input signal RTD

Items in curved brackets are optional extras for an additional price.

RTD Resistance thermometers
 TC Thermocouples
 DC mA Current signals
 DC V Voltage signals

CE conformity

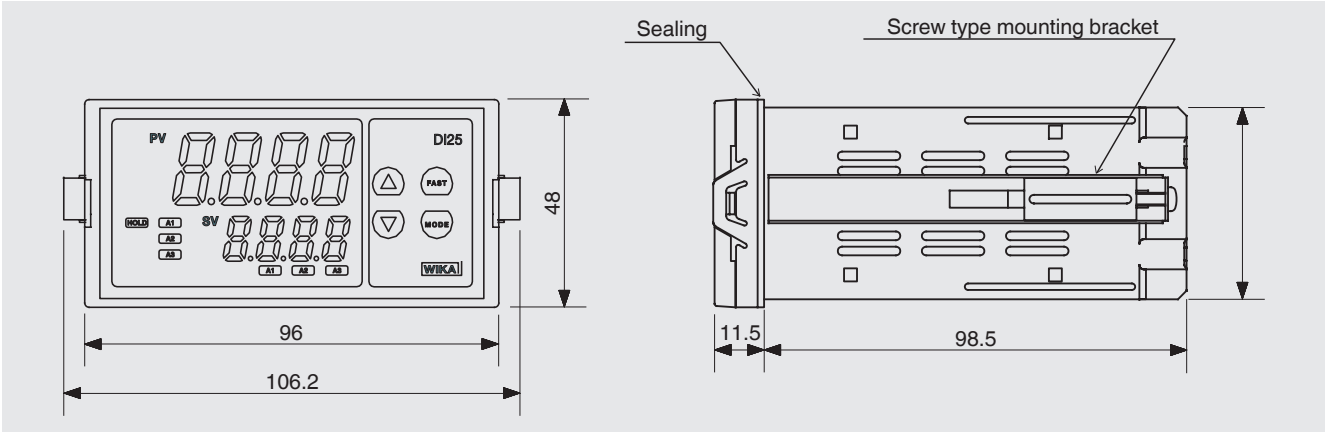
EMC directive

2004/108/EC, EN 61326 emission (group 1, class A) and interference immunity (industrial application)

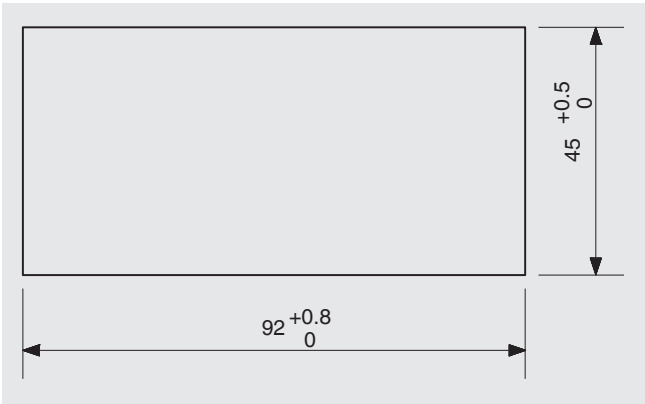
Low voltage directive

2006/95/EC, EN 61010-1

Dimensions in mm



Panel cutout in mm



Order no.

Power supply	Transmitter power supply	Order no.
AC 100 ... 240 V	-	7148465
	DC 24 V	7148482
AC/DC 24 V	-	7394245
	DC 24 V	7394270

Scope of delivery

- Digital indicator model DI25
- Precision measurement shunt resistor (50 Ω)
- Sealing
- Mounting screws
- Operating instructions

Accessories

Description	Order no.
Precision measurement shunt resistor (50 Ω)	2087604

Ordering information

To order the described product the order number is sufficient. Other options require additional specification.

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